Week 2 Answers

<u>Question 1</u>

Gross profit margin	495/2,240 x100	22.1%	409/2,681x 100	15.2%
Operating profit margin	243/2,240 x 100	10.8%	47/2,681 x100	1.8%
Return on capital employed	243/(563+200)	31.8%	47/(534+300)	5.6%
Asset turnover	2,240/(563+200)	2.9X	2,681/(534+300)	3.2X
Inventory holding period	300/1,745 x365	63 days	406/2,272 x365	65days
Trade receivable period	240/2,240 x365	39 days	273/2,681 x365	37 days
Trade payable period	261/1,745 x365	55 days	354/2,272x365	57 days
Current ratio	544/291	1.87	679/432	1.57
Quick ratio	544-300/291	0.83	679-406/432	0.63
Gearing	200/563	36%	300+76/534	70%
Dividend cover	165/40	4X	11/40	0.3X
Interest Cover	243/18	13.5X	47/32	1.5X

Profitability

The ROCE has declined significantly between 2016 and 2017 from 31.8% to 5.6%. This gives an indication of the return expected from an asset base, so it gives an indication of both its profitability and efficiency.

Looking at efficiency and asset turnover, this looks to have slightly improved with every £1 of asset generating £3.2 of revenue compared with £2.9 the previous year. Therefore, if the asset base is being used efficiently, it must be an issue of profitability

The gross profit margin has gone down from 22.1% to 15.2%. As Corus is in the wholesale business, this may be because they are facing competition and can't achieve the sale price previously achieved or the purchase costs have increased and this has not been passed on to the customer. Is the expansion policy representing more sales at lower profit margins? Revenue has increased which suggests the quantity sold as increased.

The operating profit margin has suffered a serious decline from 10.8% to 1.8%. Has the expansion policy meant increased staff costs which has not yet been translated to higher sales? Why did this not come through earlier?

Liquidity

No signification changes when looking at current and quick ratio, but they are quite low for a business. This is especially a concern in 2017 as the company has gone from having £4m cash in the bank to a £76m overdraft. This may affect its credit rating and supplier will be concerned when offering goods on credit. The slight increase in the payable period may not seem drastic, but if Corus is not meeting payment dates, suppliers will cease to trade with them.

Gearing

Gearing has increased from 36% to 70%. This is cause for concern and alternative methods of financing needs to be considered especially looking at interest cover.

The interest cover has declined from 13.5x to 1.5x because of the reduction in profitability. Profitability must be improved and the company should try and restructure the debt to try and reduce interest charges.

The dividend payments of £40m cannot be sustained in the long run.

<u>Question 2</u>

Equivalent ratios

Return on capital employed	21.9%
2,000/(2,800+6,300)x100	
Asset Turnover	2.3X
20,500/(2,800+6,300)	
Gross profit margin	12.2%
2,500/20,500 X100	
Operating profit margin	9.8%
2,000/20,500 x100	
Current ratio	1.3:1
7,300/5,700	
Inventory holding period	73 days
3,600/18,000 x365	

Trade receivables collection period	66 days
3,700/20,500 x 365	
Trade payables payment period	77 days
3,800/18,000 x365	
Gearing	225%
6,300/2,800 x100	
Interest cover	3.3X
2,000/600	
Dividend cover	1.4X
1,000/700	

Introduction

Assessment from point of view of potential acquisition

Profitability

ROCE Merlot is 21.9% compared to 12.3% in Grappa. This is a measure of management's overall efficiency in use of assets and profitability.

ROCE good for Merlot due to efficient use of asset. The asset turnover for Merlot is 2.3 with only 1.2 for Grappa. If £1 invested in Merlot assets will generate £2.30 revenue in Merlot but only £1.20 in Grappa.

Profitability: Gross profit margin and operating profit margin are similar, but Grappa is more profitable with an operating profit margin of 10.5% compared to Merlot 9.8%.

One possible explanation is that Grappa has revalued its property. This will mean a relatively high value of assets compared to Merlot who has valued assets at historical cost. The high asset value will adversely affect the asset turnover ratio for Grappa and therefore the ROCE ratio.

Gearing

Merlot's assets are financed by borrowings. The gearing ratio is high and double Grappa's level of gearing. The finance costs are therefore very high in Merlot with an interest cover of only 3.3 compared to Grappa 6.

So Merlot is a more risky equity investment as profit will only have to decrease slightly and the fixed finance cost will mean no profits will be available for dividends. A small change in profitability could mean the interest payments would not be fully covered by profits giving rise to a potential solvency issue.

Liquidity

Both companies have low liquid ratios of 1.2 for Grappa and 1.3 for Merlot. But Merlot has a £1.2 million overdraft whereas Grappa has £600,000 in the bank. Grappa liquidity looks better on this basis.

Both companies have similar inventory days and collection period for receivables. The main difference is in trade payable payment period where Grappa takes longer to pay suppliers. Perhaps as better liquidity and credit rating been able to negotiate a longer payment period.

Summary

Merlot sales revenue are 70% more than Grappa but is financed by high levels of debt.

Merlot overdraft would need to be covered immediately if purchased.

Merlot seems a riskier investment, but it would depend on Victular's attitude to risk and possible synergies with its existing business activities.

Question 3

Revulsion plc

Part (a)	2016	2017
ROCE	$\frac{1,380}{9,000+0} \times 100 = 15.3\%$	$\frac{1,740}{9,400+3,200} \times 100 = 13.8\%$
Gross profit	$\frac{5,200}{24,000} \times 100 = 21.7\%$	$\frac{5,900}{28,000} \times 100 = 21.1\%$
Operating profit	$\frac{1,380}{24,000} \times 100 = 5.75\%$	$\frac{1,740}{28,000} \times 100 = 6.2\%$

Asset turnover	$\frac{24,000}{9,000+0}$ =2.7 times	$\frac{28,000}{9,400+3,200}$ = 2.2 times
Current ratio	$\frac{9,360}{2,560}$ = 3.7:1	$\frac{13,120}{3,380}$ = 3.9:1
Quick ratio	$\frac{3,840 + 80}{2,560}$ = 1.5:1	$\frac{6,240 + 880}{3,380}$ = 2.1:1
Inventory turnover	$\frac{5,440}{18,800}$ x 365 = 106 days	$\frac{6,000}{22,100}$ x365 =99 days
Trade receivables	$\frac{3,840}{24,000}$ x 365 = 58 days	$\frac{6,240}{28,000}$ x 365 days = 81 days
Gearing	0/9,000 = 0%	3,200/9,400 = 34%

Part (b)

Most of the profitability ratios have deteriorated a little. Also, the asset turnover has declined. This is has led to a decline in ROCE which is evidence that the new expansion has not yet been successful. However, there might be a significant time delay between making the investment and the results coming through fully in these financial results.

It might be too early to tell how successful the new projects have been.

Both the current and quick ratios have increased and seem to be quite high. Whether this is satisfactory depends upon the type of industry and management strategy. We do not know the industry here. However, it does appear from the figures in the statement of financial position that some of the debenture proceeds have not yet been invested and this explains the relatively high values of the bank account and ratios.

The rate of inventory turnover has improved slightly. However, the average number of days for which inventory is held is very high in absolute terms. We do not know the industry to comment easily on this.

The increase in trade receivables is also interesting because it could be the result of different factors such as: poor credit control, increased credit terms offered to customers, or a large increase in the sales towards the end of the year as a result of the expansion.

If it is poor credit control, there is a need for urgent remedial action to collect the cash and improve the bad debts. If it is due to increase credit terms and/or high year-end sales, then cash flow should improve in the next year.

The gearing level has increased as a result of the debenture issue, but it is not at a seriously high level and there may be scope for additional borrowings to fund future projects.

Limitations

It is difficult to judge the success of an expansion programme of this size over such a short period of time. We are missing lots of important information to enable us to draw a clear set of conclusions.

We do not know the sort of business Revulsion plc is involved with, whether there are any planned changes of business as part of the expansion or what the current strategy is for the development of the business during this expansion phase.

We are only given two years of financial statements and so it is impossible to determine any financial trends by time series over recent years. It may be that the results and financial position for 2016 and 2017 are unusual.

We are not given any typical industry ratios or benchmarks with major competitors, so that it is impossible to make any cross-sectional comparisons.

Given that we are not told the business of this company, it is not possible to comment on whether working capital ratios in respect of inventory holding and trade receivable collection periods are reasonable for Revulsion plc commercial sector.

We have assumed implicitly that the accounting numbers are comparable (e.g. that there have been no changes of accounting policy over this period). This may not, in fact be the case.

We do not know whether the company follows generally accepted accounting policies or whether the company received a clean audit report on the accounts.